

AMENDMENTS TO CLAIMS

1. – 15. (Cancelled).

16. (New) A capillary array electrophoresis apparatus comprising:  
a thermostatic oven which is permitted temperature adjustment and in which space is adapted to accommodate selectively one of a plurality of capillary arrays of different length;

a plurality of capillaries of a selected one of the plurality of capillary arrays of different length, wherein said plurality of capillaries are disposed in a predetermined position in the space of the thermostatic oven so that the plurality of the capillaries neither tangle each other nor concentrate in a bundle shape;

an excitation light system which irradiates excitation light to the capillaries;

a light receiving optical system which detects fluorescence; and

a power source which applies a voltage between the ends of the capillaries.

17. (New) A capillary array electrophoresis apparatus according to claim 16, wherein one end of the selected capillary array, into which a sample is introduced, is arranged at the bottom of the thermostatic oven and the other end thereof is projected from the side of the thermostatic oven.

18. (New) A capillary array electrophoresis apparatus according to claim 16, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by the excitation light at the outside of the thermostatic oven to thereby permit the detection of fluorescence.

19. (New) A capillary array electrophoresis apparatus according to claim 16, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by a laser beam at the outside of the thermostatic oven, and an array

plane face constituting a detection portion of the selected capillary array to which the laser beam is irradiated is arranged to be substantially parallel to the laser beam.

20. (New) A capillary array electrophoresis apparatus according to claim 16, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner.

21. (New) A capillary array electrophoresis apparatus according to claim 16, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner, wherein attachment and detachment of the separator in the thermostatic oven can be performed through a separator holder.

22. (New) A capillary array electrophoresis apparatus according to claim 16, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner, wherein the separator is arranged at a predetermined position in the thermostatic oven depending on the length of the selected capillary array.

23. (New) A capillary array electrophoresis apparatus comprising:  
a thermostatic oven which is permitted temperature adjustment and in which space is adapted to accommodate selectively one of a plurality of capillary arrays of different length;

a plurality of capillaries of a selected one of the plurality of capillary arrays of different length, wherein said plurality of capillaries are disposed in a predetermined position in the space of the thermostatic oven while being bent in one of a plurality of directions depending on the length thereof;

an excitation light system which irradiates excitation light to the capillaries;  
a light receiving optical system which detects fluorescence; and

a power source which applies a voltage between both ends of the capillaries.

24. (New) A capillary array electrophoresis apparatus according to claim 23, wherein one end of the selected capillary array, into which a sample is introduced, is arranged at the bottom of the thermostatic oven and the other end thereof is projected from the side of the thermostatic oven.

25. (New) A capillary array electrophoresis apparatus according to claim 23, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by the excitation light at the outside of the thermostatic oven to thereby permit the detection of fluorescence.

26. (New) A capillary array electrophoresis apparatus according to claim 23, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by a laser beam at the outside of the thermostatic oven, and an array plane face constituting a detection portion of the selected capillary array to which the laser beam is irradiated is arranged to be substantially parallel to the laser beam.

27. (New) A capillary array electrophoresis apparatus according to claim 23, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner.

28. (New) A capillary array electrophoresis apparatus according to claim 23, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner, wherein attachment and detachment of the separator in the thermostatic oven can be performed through a separator holder.

29. (New) A capillary array electrophoresis apparatus according to claim 23, further comprising a separator which holds the capillaries in the selected capillary array in a one-by-one manner, wherein the separator is arranged at a predetermined position in the thermostatic oven depending on the length of the selected capillary array.

30. (New) A method of separating and analyzing a sample using capillary array electrophoresis comprising the steps of:

selecting one of a plurality of capillary arrays of different length for accommodating the same in a space of a thermostatic oven which is permitted temperature adjustment;

disposing a plurality of capillaries of the selected one of the plurality of capillary arrays in a predetermined position in the space of the thermostatic oven so that the plurality of capillaries neither tangle each other nor concentrate in a bundle shape;

irradiating excitation light to the capillaries from an excitation light system; applying a voltage between the ends of the capillaries from a power source; and

detecting fluorescence from the sample in the capillaries by a light receiving optical system.

31. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein one end of the selected capillary array, into which the sample is introduced, is arranged at the bottom of the thermostatic oven and the other end thereof is projected from the side of the thermostatic oven.

32. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by the excitation light at the outside of the thermostatic oven to thereby permit the detection of fluorescence.

33. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by laser beam at the outside of the thermostatic oven, and an array plane face constituting a detection portion of the selected capillary array to which the laser beam is irradiated is arranged to be substantially parallel to the laser beam.

34. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner.

35. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner, and attachment and detachment of the separator in the thermostatic oven can be performed through a separator holder.

36. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 30, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner, and the separator is arranged at a predetermined position in the thermostatic oven depending on the length of the selected capillary array.

37. (New) A method of separating and analyzing a sample using capillary array electrophoresis comprising the steps of:

selecting one of a plurality of capillary arrays of different length for accommodating the same in a space of a thermostatic oven which is permitted temperature adjustment;

disposing a plurality of capillaries of the selected one of the plurality of capillary arrays in a predetermined position in the space of the thermostatic oven while being bent in one of a plurality of directions depending on the length thereof;

irradiating excitation light to the capillaries from an excitation light system;

applying a voltage between the ends of the capillaries from a power source;

and

detecting fluorescence from the sample in the capillaries by a light receiving optical system.

38. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein one end of the selected capillary array, into which the sample is introduced, is arranged at the bottom of the thermostatic oven and the other end thereof is projected from the side of the thermostatic oven.

39. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein one end of the selected capillary array is projected from the thermostatic oven and is irradiated by the excitation light at the outside of the thermostatic oven to thereby permit the detection of fluorescence.

40. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein one end of the selected capillary

array is projected from the thermostatic oven and is irradiated by laser beam at the outside of the thermostatic oven, and an array plane face constituting a detection portion of the selected capillary array to which the laser beam is irradiated is arranged to be substantially parallel to the laser beam.

41. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner.

42. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner, and attachment and detachment of the separator in the thermostatic oven can be performed through a separator holder.

43. (New) A method of separating and analyzing a sample using capillary array electrophoresis according to claim 37, wherein the capillaries in the selected capillary array are held by a separator in a one-by-one manner, and the separator is arranged at a predetermined position in the thermostatic oven depending on the length of the selected capillary array.